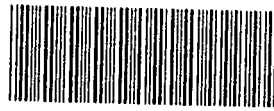


STATE OF COLORADO

COLORADO DEPARTMENT OF HEALTH

4110 East 11th Avenue
Denver, Colorado 80220
Phone (303) 320-8333



000025381



Gov. Romo
Governor

Thomas M. Vernon, M.D.
Executive Director

September 28, 1987

Department of Energy
Rocky Flats Plant
P.O. Box 928
Golden, CO 80402

Attn: ~~Mr. Albert E. Whiteman, DOE Area Manager~~
Mr. Dominic J. Sanchini, President and General Manager, Rockwell

RE: EPA I.D. No. C07890010526
Notice of Deficiency (NOD) on the
Rocky Flats Part B Application of
November 28, 1986

Dear Messrs. Whiteman and Sanchini:

We have completed our review of the first portion of the Part B Permit Application for the Rocky Flats Plant. This portion of our review covers volumes I through IX of the material titled RCRA Part B Permit Application. The material pertaining to closure and post closure activities is still undergoing review and our comments will be transmitted at a later time. Also, our comments on Section E (Groundwater) of the RCRA Part B Permit Application will be submitted with the post closure comments.

We have found several areas of deficiency in the Rocky Flats Part B application which must be corrected. These deficiencies are described in detail in the enclosed document. An outline of the deficiencies is provided for reference. Furthermore, EPA has transmitted to us their list of deficiencies on the RCRA Part B Permit Application. We have attached EPA's comments.

You should be informed that failure to furnish in full the information required by the Part B application will result in the Department initiating procedures to deny the permit application under the provisions of 6 CCR 1007-3, Section 100.503(b).

Best Available Copy

ADMIN RECCRD

SW-A-002927

These deficiencies must be corrected and revised information must be submitted to this office by December 15, 1987. We reserve the right to request such additional information as may be necessary to supplement previously submitted material under 100.500. If you have any questions regarding this notice please contact Peter Bierbaum at 331-4830.

Sincerely,

Peter Bierbaum

Joan Sowinski

Peter Bierbaum
Public Health Engineer
Hazardous Materials and
Waste Management Division

Joan Sowinski
Chief, Hazardous Waste Control Section
Hazardous Materials and
Waste Management Division

Enclosure: Notice of Deficiency

cc: Lou Johnson, EPA
Nathaniel Muiillo, EPA
Jefferson County Health Dept.
Boulder County Health Dept.
Tri County Health Dept.

NOTICE OF DEFICIENCY OUTLINE

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3. Closure of Tanks
4. Closure of Incinerators

SECTION A (GENERAL FACILITY DESCRIPTION)

(6 CCR 1007-3, Sections 100.40 and 100.41(a)(1))

1. General Facility Description: The general facility description should include a listing of the number of units to be permitted and an estimate of the annual waste volume.
2. Waste Facility Locations: The applicant must identify on a drawing the location of all past, present, and future TSD facilities. The map must identify each separate tank or container storage area.

SECTION 3 (SITE SPECIFIC INFORMATION)

(b) CCR 1007-3, Sections 100.41(a)(10), 100.41(a)(11) and 264.18)

1. Traffic Information: The applicant must provide the following additional information regarding the transportation of hazardous wastes on plant:
 - a. The applicant must describe access road surfacing and load bearing capacity.
 - b. The applicant must identify traffic control signal locations.
 - c. The applicant must identify the types and number of vehicles.
2. Topographic Map: The site topographic map must include the following additional information:
 - a. an identification of any recreational areas;
 - b. locations of injection or withdrawal wells;
 - c. locations of sanitary sewer transfer systems;
 - d. locations of loading and unloading areas; and
 - e. locations of fire protection facilities.
3. Site Specific Information: The applicant must provide an estimate of the 100-year, 24-hour, rainfall amount.

1. Treatment, Storage, and Disposal (TSD) Waste Analysis Plan: The application does not include a waste analysis plan specific to the treatment and storage activities. The applicant has supplied a detailed generator analysis of the waste, but this waste identification analysis does not satisfy all the requirements applicable to a treatment, storage, or disposal facility. The owner or operator of a TSD facility must establish a plan to analyze all waste streams to the extent necessary to treat, store, or dispose of the wastes in accordance with the regulations. Logically, the applicant should first identify all of the regulated units, and then work backwards to characterize all the waste streams which the unit can accept. The generator identification analysis may supplement the TSD waste analysis, but the applicant must still develop a more extensive TSD waste analysis plan.

The applicant must identify waste analysis parameters specific to each of the waste treatment and storage activities. These parameters must be sufficient to insure all wastes can be safely treated or stored, based on the design and operating limits set for each unit. For example, to operate an incinerator safely in accordance with the regulations, factors such as waste composition, ash content, heat of combustion, chlorine content, solids content, and other waste parameters should be determined.

Once the waste analysis parameters for each regulated unit are identified, the rationale, the sampling method, the analytical method, the sampling point, and the frequency of sampling must be determined. Again, these factors must be based on the needs of the treatment or storage activity, and not just the generator needs.

2. Incompatible Wastes: The applicant must describe how incompatible wastes are determined. What test method is used to determine incompatibility? When knowledge of the waste is used in place of testing, the applicant must explain the criteria used to identify incompatible wastes.
3. Sampling Point: The sampling point must clearly be identified for each unit to be permitted. Currently the application describes the procedure for obtaining tank, container, and in-line samples but does not describe the intended sample locations. For example, where will the liquid incinerator waste feed be sampled, at the 3000 gallon feed tanks, at the 10,000 gallon storage tanks, or prior to the storage tanks?
The applicant should identify all waste streams which will go into an individual unit. Flow diagrams illustrating waste flow into each unit would be helpful.
4. Frequency of Sampling: The applicant proposes biennial full characterization of composite points. The applicant must also propose a frequency for characterization (or certification where applicable) at generator points, a frequency of analysis for additional sampling conducted for treatment and storage units; and a frequency of analysis for each fingerprint check.

Waste Stream Identification and Characterization. Assumes that the waste streams sampled follow a normal distribution. However, the applicant provides no justification or verification that the waste streams follow normal distributions. When developing the frequency of sampling and sampling locations for the TSD waste analysis plan, the applicant must evaluate the waste streams to determine whether they vary significantly with time or location. This evaluation should include a review of the results from the Waste Stream Identification and Characterization work verifying normal distribution. Where the applicant identifies waste streams for which random sampling is not representative, the applicant must propose increased sampling or additional locations to insure that wastes are adequately characterized.

6. Waste Analysis Parameters and Rationale: As previously explained, the applicant must identify waste analysis parameters specific to each of the waste treatment and storage activities. Table C-14 provides only a partial list of the necessary parameters.
7. Fingerprint Parameters and Rationale: The application does not clearly explain when and for what purpose fingerprint parameters will be used. The application must state on a unit specific basis what fingerprint parameters will be used to indicate whether or not waste streams are changing. The applicant must then provide a rationale for each fingerprint parameter. The rationale must explain what each fingerprint parameter will indicate and what criteria will be used to identify that a discrepancy has occurred.
8. Test Methods: The application must include test methods for all parameters. Currently the application lacks test methods for the following parameters: solids content, ash content, viscosity, heat of combustion, heat capacity, thermogravimetric analysis differential, thermal analysis, specific ion analysis, elemental analysis, total organic halogens, incompatibility, and cyanides. The applicant must also specify test methods for any parameters added through revisions.

(6 CCR 1007-3, Section 100.41(b), and Part 264 Subpart I, J and O)

1. Container Storage: Free Liquids

Unit 1 (Main Hazardous Waste Storage Area) The applicant proposes the permitting of 500 hazardous and mixed waste container storage areas under Unit 1. This number of storage areas seems excessive; the applicant should explain the reason for the proposed capacity. In any case, the applicant must clearly identify the location of each container storage area.

Unit 2 (Building 331): The applicant must provide a diagram showing the location of the container storage area in reference to the building.

Unit 3 (Building 444/447): The applicant must provide a diagram showing the locations of the container storage areas in reference to the buildings.

Unit 4 (Building 444): Containment capacity calculation does not account for precipitation. Precipitation values must be included in the demonstration of secondary containment capacity. The design diagram does not indicate a slope for this containment area, but shows a safety grating. Does the safety grating serve as a collection and removal point?

Unit 5 (Building 444/460): The applicant must provide a diagram showing the locations of the container storage areas in reference to the buildings.

Unit 6 (Building 447): The applicant must provide a diagram of the containment area showing container storage orientations (aisle space and stacking). The applicant must calculate the secondary containment capacity for this area, and provide supporting calculations. Are pallets used to protect containers from contact with accumulated liquids or is this area sloped towards a collection point? What protective coatings are applied in this area?

Unit 7 (Building 460): The applicant must provide a diagram showing the locations of the container storage areas in reference to the buildings.

Units 8 & 9 (Building 460): Containment capacity calculations must account for precipitation. Also, the calculation of containment capacity does not account for the presence of the dumpster or the dumpster saddle. These factors may reduce containment capacity below the required 250 gallons. The applicant must show how these containers are kept from contact with accumulated liquids or how liquids are removed to minimize contact.

Unit 10 (Building 561): The applicant must provide a diagram showing the locations of the container storage areas in reference to the buildings.

will be used to provide secondary containment for this area. However, the calculations indicate that a 2 inch berm will not provide the required 10% capacity. Either the maximum storage capacity must be reduced or the extra secondary containment must be provided. The applicant must also include provisions to drain liquids away from the stored containers or to protect the containers from accumulated liquids. The applicant must describe and provide pertinent information on the type of protective coating used on the secondary containment.

Unit 12 (Building 776): The applicant must demonstrate how this area is designed to drain liquids away from the stored containers, or demonstrate how containers will be protected from contact with accumulated liquids. How is the secondary containment in this area coated to protect against infiltration of the stored wastes?

Unit 13 (Building 884): The applicant must explain how containers will be oriented during storage, and calculate the maximum capacity of this area. The applicant must describe the drip pans which will be used for secondary containment in more detail. The calculations shown for secondary containment capacity are incorrect. The 10 inch depth drip pans will not provide secondary containment for the spill of one 55 gallon container when they are holding six containers total.

2. Container Storage: No Free Liquids: Container storage areas that store containers holding only wastes that do not contain free liquids must still demonstrate that either 1. the storage area is designed or sloped to drain and remove liquids or 2. that containers are elevated or protected from contact with accumulated liquids. The applicant must also provide the container capacity and storage orientations for these areas. The following additional information must be provided:

Unit 19 (Building 374): The proposed container orientation is unclear for this area. Storage area description should include a description of rows, aisle spacing and stacking.

Unit 20 (Building 664): Applicant must specify the maximum container storage capacity for this area and detail how containers will be stored.

Unit 24 (Building 964): The aisle spacing shown in Fig. D-14 does not appear to be adequate for removing a Salt Crete box. The applicant must explain how a damaged or broken box will be handled.

Unit 25 (Pond Crete and Salt Crete Storage Area): The applicant originally proposed the asphalt pad area as a temporary storage area, to be covered only under interim status, and not to be permitted. The intent was to store the pond and salt crete only until the Department of Energy obtained approval for an off-site location to accept the material. We again urge the Department of Energy and Rockwell to concentrate their efforts on obtaining from EPA either a delisting of the pond crete and salt crete from hazardous waste regulation or an approval for interim status at an off-site mixed waste disposal facility. As you have shown with waste analysis of these materials, the level of organics in the solidified blocks are below the land-ban levels.

consequently, these materials could be safely handled. If state approval can not be obtained by the time of the issuance of the permit, we will specify a shorter term permit life for this unit (i.e. two years).

Furthermore, this container storage area, as currently designed and operated, does not meet the 264 permit requirements. First, not all containers appear to be inspectible on a weekly basis. Second, the specified protective covering has a projected life of only three years (p.D-41 of the application). The applicant must also explain how a damaged or broken box will be removed. These issues must be addressed before a permit can be issued for this unit.

Unit 26 (Building 881): The applicant must explain how containers will be protected from accumulated liquids.

3. Treatment in Containers:

Unit 30 (Chip Cementation Building 447): Are the chips ignitable? If so, what procedures are in place to prevent ignition? The applicant should explain what procedures are in place to control organic vapors and dust. What quality control and assurance procedures are in place to provide consistent treatment?

Unit 31 (Uranium Oxide Immobilization Building 447) The applicant must explain the uranium oxide immobilization process if the intent is to receive a permit for this operation.

4. Tank Storage:

Application of New Tank Regulations: The applicant should apply the new tank regulations published as final in Federal Register, Vol. 51, No 134, Monday, July 14, 1986. The new tank regulations will be effective in Colorado before a final decision is reached on the Rocky Flats application. The new tank regulations require the applicant to supply significantly different information from the type of information required by the existing tank regulations. To change paths from the old to the new regulations at a later time will delay the Department's review of the application and cause the applicant to waste time and efforts.

Under the new tank requirements the applicant must submit an independent review and certification of each new tank and each existing tank which does not already have adequate secondary containment. This submittal must include calculations and supporting material used to make each certification.

For existing tanks which do not already have adequate secondary containment the assessment must include:

- Design standard(s) according to which the tank and ancillary equipment were constructed;
- Hazardous characteristics of the wastes that have been and will be handled
- Corrosion protection measures;
- Documented age of the tank system; and
- Results of a leak test, internal inspection, or other tank integrity examination

1986) the assessment must include:

- Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;
- Hazardous characteristics of the waste(s) to be handled;
- For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, an assessment by a corrosion expert;
- For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and
- Design considerations to ensure the stability of the tank system foundation.

For each existing tank that the applicant does not provide a independent assessment, the applicant must clearly demonstrate that adequate secondary containment already exists. In order to demonstrate adequate secondary containment, the applicant must show that each secondary containment is:

- Free of cracks and gaps and sealed to prevent migration of the wastes into the soil, ground water, surface water, or containment material (i.e. concrete);
- Provides 100 percent containment capacity of the largest tank within its boundary;
- Capable of detecting a release from the primary tank within 24 hours;
- Constructed or lined with materials that are compatible with the wastes placed in the tank system; and
- Designed to prevent failure owing to pressure gradients, climatic conditions, stress from daily operations, settlement, compression, or uplift.

In determining secondary containment the applicant on several occasions indicates that the building will be used for secondary containment. If the applicant intends to use buildings for secondary containment then the applicant must demonstrate that the entire area is sealed to prevent escape of hazardous wastes and that the area is secure so that ignition sources and incompatibles are restricted from the area. Secondary containment areas should not be personnel work areas. (See section F).

Finally, secondary containment should account for continuous flow systems. Secondary containment must provide capacity to completely contain spill from a flowing system until the leak is detected and flow is stopped. For example, if a tank system is equipped with an automatic shutoff in the case of a leak, or an operator continually monitors a transfer, no extra secondary containment is needed. However, if flow into a system is unmonitored and inspectors only check for leaks every 24 hours, then secondary containment must provide enough capacity to hold a 24-hour release of the continuous flow.

Unit 40. The applicant must identify all individual tanks which compose Unit 40. The description of the entire system is important; however, each regulated tank must be clearly defined. A tank information table similar to tables D-3 through D-11 should be provided for the Unit 40 tanks.

For each of the regulated tanks in the process waste transfer and collection system the applicant must describe the overflow prevention controls in more detail. Specifically, the applicant must specify a high level indicator set point for each tank.

The applicant must explain how the secondary containment areas are sealed to prevent migration of wastes into the concrete. The applicant must also explain how joints and gaps are sealed to prevent release of spills.

a. Building 425: Specify high level set point and describe protection against the migration of spills (see above). The vault must be constructed with chemical resistant water stops in place at all joints.

b. Building 123: The waste system collection sumps must also have secondary containment. The applicant must evaluate these sumps to determine whether they will require permitting as storage tanks.

c. Building 444: Specify high level set point and describe protection against the migration of spills (see above). The secondary containment capacity for the two 4300 gallon tanks (T-2 and T-3) does not provide adequate capacity. Calculations show that the containment capacity is only 3,844 gallons.

The applicant must describe the venting and emission control system on the tanks which contain cyanide wash (T-3 and T-4). How are these emissions filtered to prevent cyanide release? Since the cyanide wash tanks are maintained at a negative pressure the applicant must specify how the tanks are pressure monitored and what level is set for inspection purposes.

d. Building 447: Specify high level set point and describe protection against the migration of spills (see above). The applicant must provide secondary containment calculations for this area.

e. Building 460: Specify high level set point and describe protection against the migration of spills (see above). The applicant must repeat the secondary containment capacity calculations for the area surrounding the 3500 gallon tanks. Because the containment capacity is close to the 100% requirement, calculations should take into account the space lost from the presence of the tank supports and any other structures.

The applicant must specify the freeboard levels for the open sump tanks. Freeboard should be sufficient to prevent overtopping during filling and emptying of the tanks. The applicant must also describe and illustrate the secondary containment for these sump tanks.

- i. Building 774: Specify high level set point and describe protection against the migration of spills (see above).
- g. Building 778: The applicant must describe and illustrate the secondary containment for the sumps in this building. The applicant must determine if these sumps are regulated tank storage units which will require a permit.
- h. Building 865: The applicant must describe and illustrate the secondary containment for the sumps in this building. The applicant must determine if these sumps are regulated tank storage units which will require a permit.
- i. Building 866: Specify high level set point and describe protection against the migration of spills (see above).
- j. Building 883: Specify high level set point and describe protection against the migration of spills (see above). The applicant must clarify whether or not tanks A-24, A-25, and A-26 will be accepting hazardous waste. The tank diagrams are included for these units; however, the narrative indicates that these tanks will not be used for hazardous waste storage. Which is the case?
For tanks T-1 and T-2, the 1250 gallon storage tanks, the applicant must specify how the vault joints are sealed. Furthermore, since these tanks are operated under a negative pressure, the applicant must specify the pressure set points used for inspection purposes.
- k. Building 887: Specify high level set point and describe protection against the migration of spills (see above).
- l. Building 889: Specify high level set point and describe protection against the migration of spills (see above).
- m. T-207: The applicant must provide a complete independent assessment of this tank since the tank does not have secondary containment. (See Above)

Unit 41 (Building 774): The maximum liquid level height stated on table D-4 is 23'4", yet the tank diagrams Fig. D 301 shows the total height of these tanks to be 22'5" for tank 41.01 and 22'10" for tank 41.02. The maximum liquid level height must be several inches below the level of overflow. Furthermore, an indicator must be set at the maximum liquid level height so that the operator is warned when this level is reached. The overflow of the tank can not be used as an indicator of when a tank is full.

The applicant must explain how vapor emissions from these tanks will be controlled to prevent any unacceptable release of toxic vapors and/or build-up of ignitable vapors.

The secondary containment explanation provided does not adequately demonstrate that a complete tank failure can be contained. The applicant indicates that existing tanks will be used for secondary containment. However, if these tanks are full then they will not provide any additional capacity.

The applicant must provide detailed plans and description of the secondary containment system for these tanks. The secondary containment must provide a capacity of 10,470 gallons (100% of the largest tank capacity). The secondary containment must be free of cracks or gaps and lined or sealed with an impermeable coating that will prevent migration of waste into the concrete.

The applicant must also provide detailed plans and description of the secondary containment required for ancillary equipment.

Unit 42 (Building 374): The applicant is considering pursuing a National Pollution Discharge Elimination Standards (NPDES) permit. This decision should be made up front so that all tanks which will be covered under the NPDES permit can be identified and withdrawn from the hazardous waste permit application.

The applicant must provide detailed plans and description for the secondary containment for these tanks. The secondary containment must provide containment for 100% of the largest tank's capacity. The secondary containment must be free of cracks or gaps and lined or sealed with an impermeable coating which will prevent migration of waste into the concrete. Secondary containment must also be provided for the ancillary equipment.

Again, the description of the sump system does not adequately demonstrate that a complete tank failure can be contained. The description indicates that tanks which may already be full will be used as secondary containment.

The applicant must specify the Liquid High Alarm Level for all tanks. The high level alarm must be set at a level far enough below the overflow point to allow sufficient time for the operator to shut down the waste feed. The applicant must specify the control set points for high and low pressure and high temperature that are used so that the design limits are not exceeded. These set points are particularly important when reactions are occurring as part of the treatment process. The applicant should explain why the "Maximum Liquid Level Height" exceeds the height of the tank.

The applicant must demonstrate adequate venting capacity and emission control to ensure that pressure build-up and vacuums can be controlled and to ensure that toxic vapors are not emitted.

The applicant must explain the treatment systems process control in more detail. What are the alarm level set points for the process control variables such as temperature, pressure, pH, etc...? The applicant must explain how the treatment process is monitored to insure that treatment is complete and safe.

- The applicant must specify a high level set point for these tanks.
- The applicant must identify adequate secondary containment. The applicant must provide calculations and drawings demonstrating 100% secondary containment capacity for the largest tank. The secondary containment must be sealed to prevent migration of wastes into the concrete.

The comments on the groundwater section of the application will be included with the review and comments on the post closure section of the application.

1. Inspection Schedule The applicant must explain the types of remedial action which will be conducted to correct problems identified by inspection. The applicant must also propose time frames for implementation of remedial actions. The applicant must prepare descriptions of the remedial actions which can be referenced from the inspection schedules.

The applicant must make the following additions to the inspection schedules:

 - a. Tank inspection schedule: Certain tanks require additional inspection items. For tanks which store or treat ignitable wastes, the applicant must include in the inspection schedule items to address the additional fire prevention equipment. For example, items such as an inert gas blanketing system or a carbon filter system must be identified on the inspection schedule. For tanks which use cathodic or other corrosion protection measures, the applicant must include inspection of the corrosion protection system in the schedule.
 - b. Incinerator inspection schedule: The incinerator inspection schedule must be modified to reflect changes from comments on the trial burn plan. All additional waste feed cutoff parameters, feed limitations, and safety measures must be added to the inspection list.
2. Preventative Procedures, Structures and Equipment: The applicant must address preventative procedures on a unit specific or unit type specific basis as described below.
 - a. Loading and unloading: Loading and unloading procedures must be detailed for each type of activity (i.e. container transfer, transfer of concrete blocks, transfer to tanks). For areas where loading and unloading of tanks or containers occur repeatedly such as on loading docks the applicant must explain what structures and procedures are in place to contain spills. The applicant must explain what procedures will be used when handling containers to prevent spills, releases, or other accidents. This information must include:
 - a description of secondary containment provided in loading and unloading areas;
 - an explanation of how containers are secured during transport
 - the safety procedures used to prevent damage to containers during transport; and
 - a description of how gas cylinders will be secured during transport and storage to prevent breakage or puncture.Furthermore, the applicant must explain what procedures will be used to prevent spills, releases, ignition or other accidents when transferring wastes to or from tanks and containers. This information must include:
 - procedures to prevent sparking when transferring ignitables
 - procedures used to minimize vapor emission and spills when transferring wastes

the applicant must provide unit specific run-on/run-off control measures. What structures and procedures are used to control and monitor run-on and run-off to prevent releases of hazardous waste? Secondary containment for units outside of buildings must provide precipitation cover or additional capacity to hold precipitation.

- c. Personnel Protective Equipment: The applicant must describe on a case-by-case basis, the types of equipment used to protect Rocky Flats personnel from dangerous exposures to hazardous waste. The applicant may submit independent certification demonstrating that all protective equipment associated with hazardous waste activities meets OSHA requirements. The applicant must also propose a schedule for on-going evaluation of protective equipment.

Areas which are used for secondary containment for hazardous waste units should not encompass work areas. Personnel will, out of necessity, enter secondary containment areas for inspection, maintenance, transfer, and other operations. However, employee fulltime work areas should not be exposed to the risk of hazardous waste spills.

- d. Power Outages: The applicant must explain the emergency power backup system in more detail. Does the backup power begin immediately after a power failure or is there some delay?

3. Prevention of Reaction of Ignitable, Reactive, and Incompatible Wastes:

The applicant must define which units will accept ignitable waste, reactive wastes, or incompatible wastes. The applicant must describe how these wastes are identified and labeled. The applicant must describe in greater detail the procedures and precautions used to prevent reaction of ignitable, reactive, and incompatible waste. (See below)

- a. Incompatible and Reactive Wastes: The applicant must identify where mixing of incompatible or reactive wastes occurs. The applicant must describe how the mixing is monitored and controlled to prevent releases of hazardous constituents. Where incompatibles or reactive wastes are stored in the same area, the applicant must describe for each case what structures and procedures are in place to prevent mixing of wastes and spills.
- b. Ignitable Wastes: The applicant must provide information on a unit specific basis demonstrating compliance with all applicable National Fire Protection Association (NFPA) codes. Alternatively, the applicant may submit an independent certification demonstrating compliance with all applicable NFPA codes. The applicant must also include a proposed schedule for reassessment of compliance with the NFPA codes.

4. Required Equipment:

- a. Spill Control Equipment: The applicant must identify the contents of the spill control equipment kits referenced as kits "A", "B", and "C".
- b. Decontamination Equipment: The applicant must provide and describe equipment for decontamination of personnel and equipment.

1. Emergency Coordinator: The applicant must provide a list of the names, addresses and phone numbers of all emergency coordinators.
2. Implementation of Contingency Plan: The applicant must include the following items under the implementation section of the contingency plan:
 - a. The contingency plan must be implemented if a hazardous waste incident results in an injury which requires more than first aid attention.
 - b. The contingency plan must be implemented in the event of an uncontained release of hazardous waste to surface or groundwaters.
3. Emergency Response Procedures:
 - a. Notification: The applicant must also notify the Colorado Department of Health, Hazardous Materials and Waste Management Division whenever the contingency plan is implemented.
 - b. Control Procedures: The applicant must specify specific response procedures which will be implemented to minimize the release of hazardous waste or hazardous waste constituents in the case of a release to the plants surface water control system. Specifically, what steps will be taken to prevent any release of surface waters?

The applicant must explain what steps are taken to minimize the effects of a power failure. The application is not clear on whether a period of delay occurs after a power outage before the backup power is activated.

Also, the applicant references the waste analysis plan for use when analyzing contaminated soil samples. However the waste analysis plan does not include a sampling and analysis section for soils. These additional plans for soil sampling and soil analysis must be provided.
4. Location, Description, and Capabilities of Emergency Equipment:
 - a. The applicant must provide information which shows the location of fire extinguishers.
 - b. The applicant must demonstrate that the amount of supplied air units is adequate for the personnel response needs.
5. Contingency Plan Attachments:
 - a. The applicant must provide evacuation route documents for all buildings in which hazardous waste is stored or treated. These evacuation plans should be attached to the contingency plan for that building.
 - b. For each building the applicant should provide waste handling information specific to the waste streams handled within that building. The contingency plan for a given building should contain this waste management data.

Not Required &
Inappropriate. Vicksburg
Comments are as close as we
come.

1. On-the-Job Training: The applicant must include procedures to demonstrate that employees receive adequate on-the-job training. The applicant must describe how on-the-job training is tracked and documented. The applicant must describe the categories of training which are include in on-the-job training.
2. Module II Training: Module II training must include training on the plant's contingency plan and emergency measures. Middle managers who will be receiving the Module II training must be familiar with these emergency procedures since they will often be making accident response decisions.

(b) CCR 1007-3, Sections 100.41(a)(13), 100.41(a)(14), 100.41(a)(15), 100.41(a)(16), 100.41(a)(17) and Part 264 Subpart G and Part 266)

1. Closure Schedule: The regulations limit the time frame for closure to 180 days. The applicant must provide justification for closures which extend beyond 180 days. This justification must demonstrate that;

- ✓ a. The closure activities will, of necessity, take longer than 180 days to complete; and
- ✓ b. The applicant has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but inactive facility.

2. Closure of Containers

- ✓ a. Maximum Inventory: Several inconsistencies exist between the container area maximum inventories listed in Table I-5 and the container area maximum inventories listed in Table D-2. Specifically, the following numbers are inconsistent.

Unit #	Section I	Section D
1	19,890 drums	20,000 drums
5	120 drums	54 drums
10	120 drums	54 drums
19	378 boxes	210 boxes
21	1318 boxes	504 boxes

The applicant must correct these inconsistencies by specifying one maximum inventory for these areas.

- ✓ b. The applicant must specify the criteria used to determine whether cleaning water is sent to on-site aqueous treatment or sent to an approved off-site treatment or disposal facility. *whites compatible with the RFP waste treatment facilities treated on-site. Incompatible wastes will be offsite*
- c. Verification of Decontamination: The procedures proposed in Section I-1f for verification of decontamination present some problems.

- ✓ i. Most of the parameters listed will not be present in the rinsate source. Consequently, background values for these parameters are zero. Technically, it is incorrect to establish three standard deviations from a zero or detection limit value. More appropriately, the applicant should set a level for these type of parameters. *When have background values at the detection limit, then will use the detection limit as the maximum acceptable limit.*

- ✓ ii. The use of indicators such as Total Organic Carbon (TOC) and Total Organic Halogen (TOX) for cleanup of asphalt areas is not appropriate verification of decontamination. The asphalt will cause elevated levels of TOC and TOX, causing a false positive. The applicant should select indicators for which the structure materials do not create an interference.

- ✓ iii. If the applicant intends to use sampling of rinse water to determine the success of decontamination, the applicant must provide greater detail on the sampling plan. What is the frequency of sampling? What are the number of samples? Where and how will samples be collected?

*From washers or collection tanks.
1 sample per wash rinse, or
1 sample/1000 gallons
that samples.*

$$\frac{1}{100} \times \frac{1 \times 10^4}{1 \times 10^4} =$$

$$\frac{10^4}{10^6} = \frac{10,000}{1,000,000} = 10,000 \text{ PPM}$$

a. Maximum inventory: Several inconsistencies exist between the tank maximum inventories listed in Table I-7 and the tank maximum capacities listed in Section D. Specifically, the following numbets are inconsistent.

Unit #	Section D	Section I
40.13	225 gallons	300 gallons
B460/T-4	1000 gallons	not listed
40.04	4300 gallons	3500 gallons
40.05	4300 gallons	3500 gallons
40.01	1960 gallons	3000 gallons
B883/A-24	750 gallons	not listed
B883/A-25	750 gallons	not listed
B883/A-26	750 gallons	not listed
B883/B-16	250 gallons	not listed
41.01	10,470 gallons	10,000 gallons
41.02	10,470 gallons	10,000 gallons
42.01	38,558 gallons	33,000 gallons
42.02	38,558 gallons	33,000 gallons
42.03	38,558 gallons	33,000 gallons
42.07	22,992 gallons	19,000 gallons
42.08	22,992 gallons	19,000 gallons
42.09	22,992 gallons	19,000 gallons
42.19	3606 gallons	3506 gallons
42.20	4645 gallons	4635 gallons
47.01	2000 gallons	1500 gallons
47.02	2250 gallons	230 gallons
47.03	2250 gallons	2000 gallons
48.01	30,000 gallons	25,000 gallons

The applicant must correct these inconsistencies by specifying one maximum inventory for these areas.

b. Verification of Decontamination: The same problems specified above for containers apply to the verification procedures for tanks.

4. Closure of Incinerators: The same verification problems apply to the incinerator closure procedures.